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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,065	04/08/2004	William Gordon	GOR101	9201

7590 10/15/2007
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EXAMINER

MITCHELL, TEENA KAY

ART UNIT	PAPER NUMBER
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3771

MAIL DATE	DELIVERY MODE
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10/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/821,065

Applicant(s)

GORDON, WILLIAM

Examiner

Teena Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: counterlung 98. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, and 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanwisher (3,556,098).

Regarding claim 1, Kanwisher in a rebreather apparatus discloses a means for providing breathable gases to a user of the apparatus and transporting gases exhaled by the user to a medium (16) for removing unwanted elemental molecules from the exhaled gases (Fig. 1; elements 10, 12, 14); means for providing compressed gases to the apparatus (10, 12); means for monitoring the gases circulating through the apparatus and controlling the addition of compressed gas to the apparatus (48, 49, 60); a gas scrubber canister (14) having at least one removable end caps (65, 66) and a cross sectional shape selected from the group of shapes consisting of an oval and ellipse (Fig. 2); the at least one removable end caps (65, 66) being located one at each end of the gas scrubber canister (14; Fig. 2); the gas scrubber canister (14) configured for securing a disposable adsorbent (16) material, used to remove unwanted elemental molecules from the exhaled gases, in the interior thereof (Figs. 1, 2); the gas scrubber canister (14) having a general hollow interior tube (Fig. 2, note where 68 runs) located in the approximate center thereof, the tube having the same cross sectional shape as the gas scrubber and configured to allow gases to pass radially through the walls of the tube (note arrows at 39, Fig. 2); the gas scrubber canister being further configured such that when the adsorbent material (16) is placed between the canister (14) wall and the adsorbent material throughout the portion of the canister containing the adsorbent such that gases will pass radially through the adsorbent material between the hollow tube and the space between the canister wall and the adsorbent material (Figs. 2) and the

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apparatus (Figs. 1, 2); and the apparatus further comprising means for securing the apparatus to the body of a user of the apparatus (Fig. 1).

Regarding claim 2, Kanwisher discloses wherein the at least one removable end cap (65, 66) is configured for placing a gas monitoring and control system therein (48, 49, 60).

Regarding claim 3, Kanwisher discloses wherein the at least one removable end cap is two end caps such that the scrubber canister (14) has two removable end caps (65, 66).

Regarding claim 5, Kanwisher discloses a gas supply circuit having a mouthpiece (20), an inhalation portion (24) an exhalation portion (28) and at least one counter lung (18); the inhalation portion and exhalation portion each having at least one gas conduit (Fig. 1); the mouthpiece (20) being connected to the inhalation portion and exhalation portion and configured to allow inhalation of gases from the inhalation portion and exhalation of gases into the exhalation portion; a source of compressed gas (10, 12); the source of compressed gas being in communication with the gas supply circuit by at least one compressed gas conduit (Fig. 1); at least one control system (48, 49, 60) for monitoring the gases circulating through the gas supply circuit and controlling the addition of compressed gas into the gas supply circuit; a gas scrubber canister (14) having at least one removable end cap (65, 66), a removable insert (not illustration of Fig. 2 below) secured in the interior thereof such that there is a generally uniform space between the wall of the canister and the insert (Fig. 2), and a cross sectional shape selected from the group of shapes consisting of an oval and an

ellipse (Figs. 1, 2); the at least one removable end cap being located at each end of the gas scrubber canister (65, 66, 14); the at least one removable end cap configured for water tight attachment to the gas scrubber canister and connection to the gas circuit via the gas conduits of the inhalation and exhalation portions of the gas supply circuit (Fig. 2); the insert configured for holding a disposable adsorbent (16) material used to remove unwanted elemental molecules from the gas supply circuit (Figs. 1, 2); the insert having a general hollow tube in the approximate center thereof and a plurality of holes there through to allow gases to pass through the insert and the gas scrubbing medium (note illustration of Fig. 2 below); the insert further configured such that when the insert is secured in the gas scrubber canister (14) and filled with an adsorbent material (16); the at least one removable end cap (65, 66) is placed on the gas scrubber canister and connected to the gas supply circuit (Figs. 1, 2); gases will pass radially through the insert and adsorbent material between the tube and the space between the canister wall and the insert; the insert, and the hollow tube having the same cross sectional shape as the gas scrubber canister (14); and the apparatus further comprising a harness (86) for securing the apparatus to the body of a person using the apparatus (Fig. 1).

Regarding claim 6, Kanwisher discloses wherein the at least one removable end cap (65, 66) is configured for placing a gas monitoring and control system therein (48, 49, 60).

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Regarding claim 7, Kanwisher discloses wherein the at least one removable end cap is two end caps (65, 66) such that the scrubber canister has two removable end caps (Fig. 2).

Regarding claim 9, Kanwisher discloses wherein the apparatus is configured such that the gas scrubber canister (14) is worn on a divers back (Fig. 1).

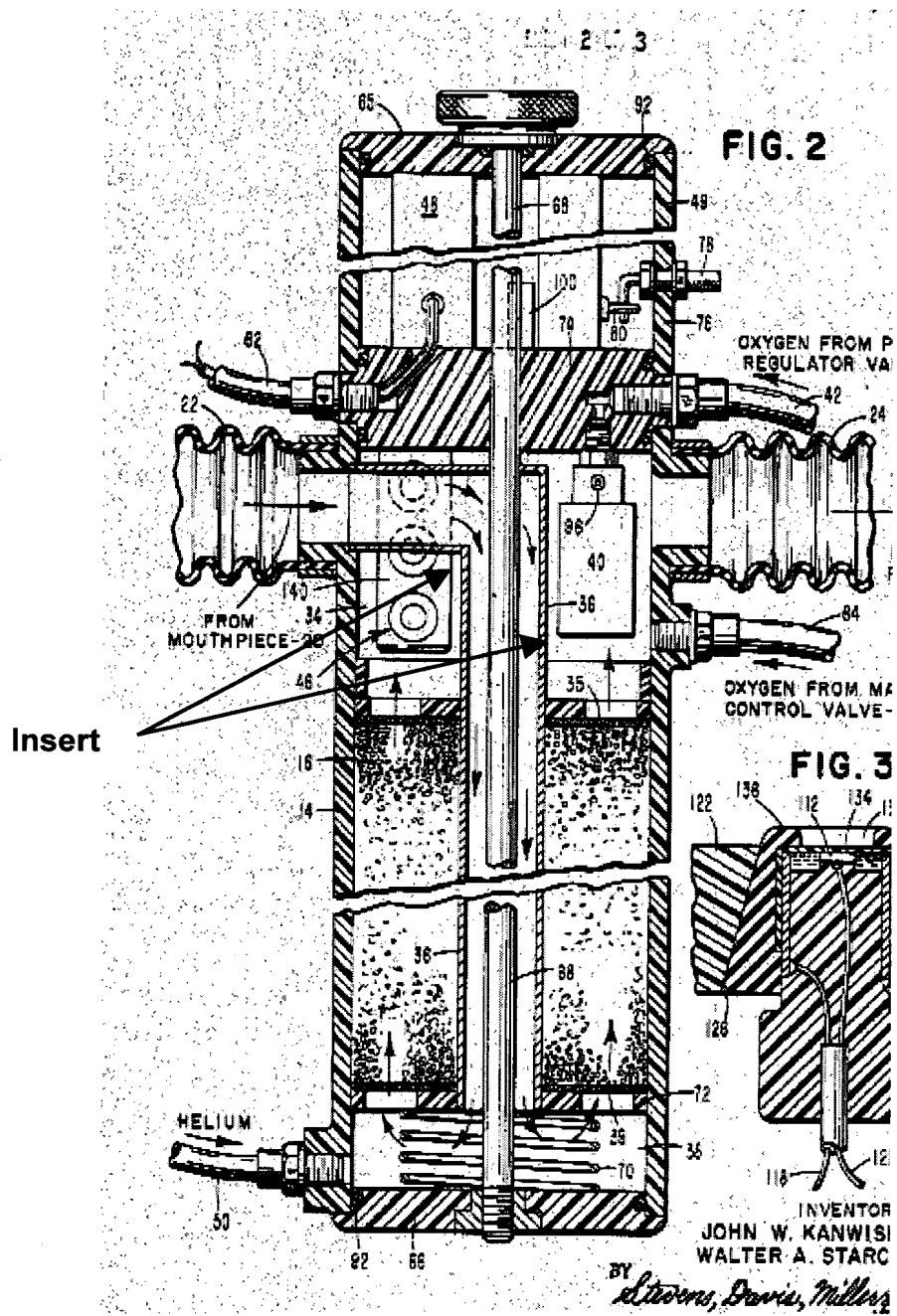
Regarding claim 10, Kanwisher discloses wherein the long axis of the canister (14) is parallel with the long axis of the diver's body (Figs. 1, 2).

Regarding claim 11, Kanwisher is configured such that that gas scrubber canister (14) can be worn on the front of a diver's body (Figs. 1, 2).

Regarding claim 12, note rejection of claims 1 and 5 above.

Regarding claim 13, note rejection of claim 6 above.

Regarding claim 14, note rejection of claim 6 above.



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4, 8, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanwisher (3,556,098).

Regarding claim 4, Kanwisher discloses the claimed invention except for both end caps having a gas monitoring control system. Based upon the claim language of claim 2, "...wherein the at least one removable end cap is configured..." Kanwisher is fully capable of having both end caps having a gas monitoring control system because there is ample room at both ends of the caps to insert some form of gas monitoring means. Therefore, Kanwisher is readable upon the claimed limitations of a gas monitoring control system on both caps.

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Regarding claim 8, note rejection of claim 4 above.

Regarding claim 16, the device of Kanwisher is fully capable of meeting the claimed functional limitations of the apparatus being easily reconfigured such that the position of the gas scrubber canister and the compressed gas source can be worn on the diver's body can be changed. Clearly Kanwisher structurally meets the limitations of the claims and since claim 12 does not further define any structural limitations it is the examiner's position that Kanwisher is fully capable of the device being worn on a user's front and/or back, even though it may not be comfortable, it is fully capable of being done by a user, especially since there is no structural limitations that define over Kanwisher.

Conclusion

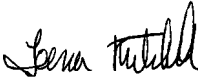
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The balance of art is cited to show rebreathing devices: 7,089,933; 6,003,513; 3,923,053; 3,021,839.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teena Mitchell whose telephone number is (571) 272-4798. The examiner can normally be reached on Monday-Friday however the examiner is on a flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Teena Mitchell
Primary Examiner
Art Unit 3771
September 23, 2007


TKM